An Economic Profile of the Agricultural Industry of Prince Edward Island

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Preface

This paper has been prepared to give an overview of some aspects of the agricultural economy of Prince Edward Island.

Most of the statistics included in this paper have been obtained from the Prince Edward Island Agricultural Statistics Vol. 15 and Review of Agriculture 1980 and the 1981 Census of Agriculture.

Special thanks to Statistics Canada Agricultural Office in Truro for assistance in obtaining statistical data and to Baxter Ramsay for his graphical designs.

Economic Profile of the Agricultural Industry of Prince Edward Island

The Agricultural Sector plays a very important role in the overall economy of Prince Edward Island. Not only does agriculture contribute as much or more on a primary basis than any other sector of the economy, but economic activity generated in related industries such as farm machinery, transportation, processing, etc. is of equal or even greater importance.

Historically, the agricultural industry has faced one overriding disadvantage in all its phases - the size of the operation has been generally too small to permit real efficiency. In simple terms, the problem confronting the economic development was that the actual physical volume of output increased hardly at all - the apparent improvements in gross income deriving almost entirely from increases in produce prices.

This was true up until 1981. In that year there was a large increase in the physical volume of agricultural production. Many adjustments have been made to correct the inequalities and inefficiencies evident in agriculture. Shifts in volume of production is one good indicator of how effective programs and policies have been under Phase I and Phase II of the Development Plan.

Agriculture for the foreseeable future will remain the cornerstone of development, and plans and aspirations for improved economic and social conditions in the Province must hinge on continued improved efficiency on the farm. Some indications of the way the industry has performed in this respect are examined in the following sections.

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Income

Any measure of income must be carefully defined if it is to convey a meaningful message. There are various income measures in use, three of which are presented here, namely: cash income, gross income and net income. (Table 1).

Cash Income represents total cash receipts from farm operations; supplementary and deficiency payments are included. (Table 2). In 1981 cash income reached a record high of $184,189,000. This represented an increase of 32.3% over 1980 and 65.4% increase over the average $111,350,000 for the five year period 1976-1980. The impact of potato production and prices on cash receipts is significant. In 1981 farm cash receipts from the sale of potatoes accounted for $79,174,000 or 43.0% of total farm cash receipts.

It is interesting to look at farm cash receipts in real dollars rather than in current dollars. Farm cash receipts were deflated using the farm price index. In 1981 farm cash receipts in real terms was $49,862,000 showing a 0.6% increase over 1980 real farm cash receipts of $49,590,000. (Table 3). These figures are only close approximations in that any farm price index used is calculated on a yearly average. The farm price index should be calculated on a weighted average basis to get a true picture of the effects of price changes on any measure of farm income. Generally speaking, prices are always highest for the farm product when the volume of the product is lowest and vice versa.

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Table 1

Income of Farm Operators from Farming Operations - P.E.I.

----------Thousand Dollars----------

Year	Farm Cash Receipts	Income in Kind	Inventory Change	Gross Income	Operating & Depreciation Charges	Farm Net Income
1971	38,656	1,358	-2,076	37,938	34,817	3,121
1972	45,075	1,536	-1,236	45,375	38,723	6,652
1973	73,492	1,803	2,536	77,831	44,757	33,074
1974	85,905	1,887	20,472	108,264	56,104	52,160
1975	86,119	1,813	-9,051	78,881	64,323	14,558
1976	104,005	2,023	6,879	112,907	69,367	43,540
1977	91,039	2,091	2,216	95,346	73,283	22,063
1978	101,066	2,436	4,559	108,061	81,848	26,213
1979	121,439	2,991	3,552	127,982	90,967	37,015
1980	139,199	3,201	-6,421	135,979	104,606	31,373
1981	184,189	3,335	23,363	210,887	122,247	88,640

Source: Prince Edward Island Agricultural Statistics, Vol. 15
and Review of Agriculture 1980

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TABLE 2 FARM CASH RECEIPTS FROM THE SALE OF AGRICULTURAL PRODUCTS - PRINCE EDWARD ISLAND ($'000)

YEAR	1972	% of Total	1973	% of Total	1974	% of Total	1975	% of Total	1976	% of Total	1977	% of Total	1978	% of Total	1979	% of Total	1980	% of Total	1981	% of Total
OATS	57	0.1	79	0.1	103	0.1	105	0.1	114	0.1	296	0.3	431	0.4	668	0.5	934	0.7	1,071	0.6
POTATOES	12,111	26.9	31,262	42.5	41,620	48.5	24,961	29.0	48,855	47.0	31,081	34.1	26,707	26.4	29,743	24.5	44,996	32.3	79,174	43.0
FRUIT	159	0.4	484	0.7	627	0.7	750	0.9	616	0.6	687	0.7	1,189	1.2	745	0.6	1,012	0.7	776	0.4
VEGETABLES	1,166	2.6	1,399	1.9	1,637	1.9	2,465	2.8	1,814	1.7	1,420	1.6	2,124	2.1	2,581	2.1	2,714	1.9	3,041	1.6
OTHER CROPS	2,934	6.5	6,021	8.2	7,270	8.5	7,312	8.5	8,058	7.7	9,696	10.7	9,028	8.9	16,611	13.7	14,068	10.1	19,070	10.4
TOTAL CROPS	16,427	36.5	39,245	53.4	51,257	59.7	35,593	41.3	59,457	57.2	43,180	47.4	39,479	39.1	50,348	41.4	63,724	45.8	103,132	56.0
CATTLE & CALVES	9,924	22.0	11,404	15.5	9,993	11.6	14,281	16.6	12,563	12.1	14,584	16.0	18,493	18.3	22,462	18.5	21,446	15.4	16,945	9.2
HOGS	8,081	17.9	11,463	15.6	10,349	12.1	12,803	14.9	12,514	12.0	12,560	13.8	16,844	16.7	18,663	15.4	20,005	14.4	22,373	12.1
SHEEP & LAMBS	59	0.1	72	0.1	107	0.1	91	0.1	107	0.1	120	0.1	135	0.1	132	0.1	144	0.1	158	0.1
DAIRY PRODUCTS	6,304	14.0	6,696	9.1	8,190	9.5	11,192	13.0	12,008	11.5	12,641	13.9	14,519	14.4	17,579	14.5	21,789	15.6	26,602	14.4
POULTRY	335	0.7	415	0.5	591	0.7	513	0.6	771	0.7	615	0.7	962	1.0	1,032	0.8	517	0.4	207	0.1
EGGS	940	2.1	1,387	1.9	1,531	1.8	1,612	1.9	1,762	1.7	1,885	2.1	1,891	1.9	2,095	1.8	2,362	1.7	2,658	1.4
OTHER LIVESTOCK & PRODUCTS	397	0.9	506	0.7	529	0.6	712	0.8	736	0.7	911	1.0	1,120	1.1	1,289	1.1	1,542	1.1	1,701	0.9
TOTAL LIVESTOCK	26,040	57.7	31,943	43.4	31,290	36.4	41,204	47.9	40,461	38.9	43,316	47.6	53,964	53.4	63,222	52.1	67,805	48.7	70,644	38.4
FOREST & MAPLE PRODUCTS	183	0.4	192	0.3	210	0.2	213	0.2	236	0.2	210	0.2	290	0.3	388	0.3	363	0.3	361	0.2
SUPPLEMENTARY & DEFICIENCY PAYMENTS	2,425	5.4	2,112	2.9	3,148	3.7	9,109	10.6	3,851	3.7	4,333	4.8	7,333	7.2	7,481	6.2	7,307	5.2	10,052	5.4
TOTAL CASH RECEIPTS	45,075	100.0	73,492	100.0	85,905	100.0	86,119	100.0	104,005	100.0	91,039	100.0	101,066	100.0	121,439	100.0	139,199	100.0	184,189	100.0

SOURCE: PRINCE EDWARD ISLAND AGRICULTURAL STATISTICS VOL. 15 AND REVIEW OF AGRICULTURE - 1980

Table 3

Statement of Actual and Real Cash Receipts

Year	Total Cash Receipts ($'000)	Farm Price Index	Real Cash Receipts ($'000)
1971	38,656	100.0	38,656
1972	45,075	120.3	37,469
1973	73,492	210.5	34,913
1974	85,905	230.1	37,334
1975	86,119	208.5	41,304
1976	104,005	238.8	43,553
1977	91,039	224.0	40,642
1978	101,066	229.8	43,980
1979	121,439	251.3	48,324
1980	139,199	280.7	49,590
1981	184,189	369.4	49,862

Statement of Actual and Real Income

Year	Net Income ($'000)	Farm Price Index	Real Net Income ($'000)
1971	3,121	100.0	3,121
1972	6,652	120.3	5,530
1973	33,074	210.5	15,712
1974	52,160	230.1	22,668
1975	14,558	208.5	6,982
1976	43,540	238.8	18,233
1977	22,063	224.0	9,850
1978	26,213	229.8	11,407
1979	37,015	251.3	14,729
1980	31,373	280.7	11,177
1981	88,640	369.4	23,996

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The gross income measure combines cash income with two items - income in kind and value of inventory change. Represented in income-in-kind is the value of consumption of home grown food, wood and woodlot products. The farm products consumed are valued at the prices that would have been received by the farmer had they been sold. The imputed home rent values that used to be included in income-in-kind are no longer included in the farm accounts. Income-in-kind has increased slowly but steadily over the 1971-1981 period. In 1981 income-in-kind was $3,335,000, only 4.2% above the 1980 figure of $3,201,000. (Table 1).

The value of inventory change is obtained by calculating the change in the quantity of field crops and the number of livestock on farms between the beginning and the end of the calendar year, and valuing the difference at average annual prices. Quantities of crops held in storage fluctuate widely from year to year, being determined largely by holdings of potatoes here on Prince Edward Island. Large quantities, coupled with good prices for potatoes, can result in a high year end inventory value. This value compared to that of the previous year results in the value of inventory change. This value can be positive or negative, in other words showing an increase or decrease with respect to beginning year inventory value. Livestock numbers and prices also affect this value. To illustrate just how wide these fluctuations are one only needs to look at the value of inventory change since 1971. (Table 1). In 1980 value of inventory saw a decline or a negative value of $6,421,000 compared to a positive value of $23,363,000 in 1981. The prime reason for this wide spread in value is the low potato prices in the fall of 1981 and the increase in potato production of 20% in 1981 compared to 1980.

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As a result of lower prices and increased production a large inventory of potatoes were kept in 1981. The same situation occurred in 1973 and 1974. In 1973 average farm price of potatoes was $6.20 per hundredweight while 1974 average price was only $2.26 per hundredweight. Potato production was up from 9.6 million hundredweight in 1973 to 12.4 million hundredweight in 1974. The value of inventory change in 1974 was $20,472,000.

The final measure, net income, results when operating and depreciation charges are subtracted from gross income. Farm operating expenses and depreciation charges include business costs incurred by farmers regardless of whether they are paid for in cash or accumulated as new debt. As far as possible, goods and services obtained directly from other farmers are excluded; so are subsidy payments where they occur in order that only net amounts paid by farmers are recorded. These charges in total have increased steadily over the past eleven years. (Table 1). Inflationary price increases as well as increases in volume of purchased inputs caused increases in this component. Total operating and depreciation charges for P.E.I. were $122.3 million in 1981, a 16.9% increase over 1980. Major expense items which have shown the greatest increase over the past five years include interest on debts up 215.4%; total machinery expenses up 93.6%; other livestock expenses (which includes livestock purchases, artificial insemination charges, purebred livestock registration fees, and veterinary expenses) up 148.5%; and depreciation on machinery up 92.6%.

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Net income is obviously dependent on all these factors just discussed. The prime determining factors influencing all these categories, and thus net income, are the physical volume of production and the price of both the product and the inputs. As may be expected, wide fluctuations occur in net income as illustrated in Graph 1 and Table 1. Net income from Prince Edward Island farm operations decreased by 15.2% from $37,015,000 in 1979 to $31,373,000 in 1980; and increased by 182.5% to $88,640,000 in 1981 compared to the 1980 figure. (Graph 1).

When comparing actual net income to real net income 1971 is used as a base year of 100. (Table 3). Real net income follows quite closely the price index numbers. It maintains the shifts in year income more comparatively than in farm cash receipts.

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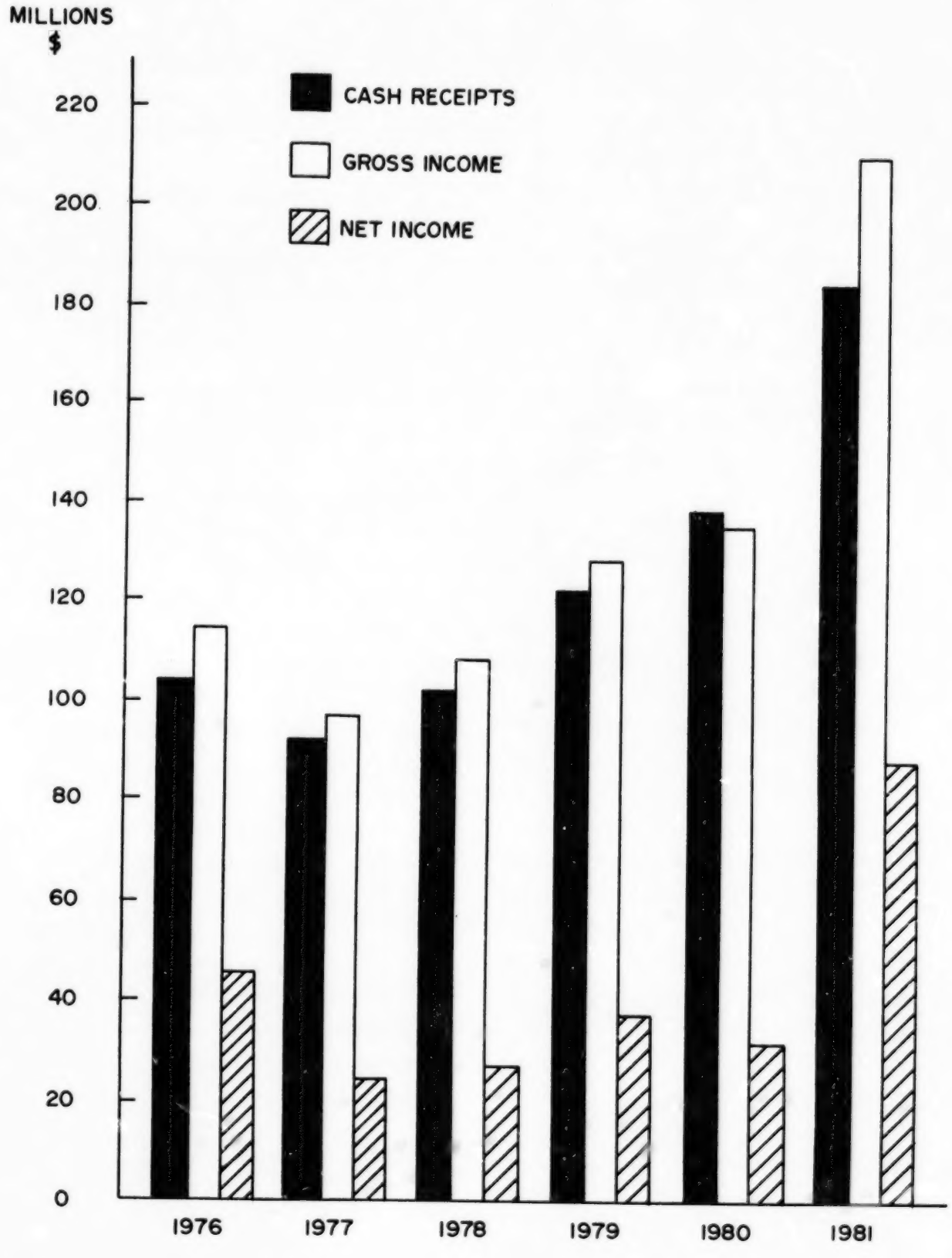
GRAPH 1


MILLIONS
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CASH RECEIPTS
GROSS INCOME
NET INCOME
1976
1977
1978
1979
1980
1981

Potatoes

The single most important field crop on Prince Edward Island is potatoes. Potato production and prices have a significant impact upon farm cash receipts. In 1976 potatoes accounted for 47.0% of total cash receipts or $48.9 million and in 1981 43.0% of total cash receipts, or $79.2 million in sales. Potato production has averaged around nine to twelve million hundredweight from 1971 to 1978. In 1979 potato production jumped to 15.2 million hundredweight. In 1981 potato production was 16.19 million hundredweight. (Table 4)

When analyzing the price of potatoes and the cash receipts from the sale of potatoes, one must keep in mind cash receipts are recorded on a calendar year basis while prices are recorded on a crop year basis. The first five or six months of the calendar year deal with production from the previous crop year and thus prices recorded in the first half of the calendar year will be those received from the previous crop year harvest. The prices recorded in the latter half of the year will be those received for that same year's crop.

In the 1980 crop year production was down by 14.3% and prices were up substantially over the 1979 crop year. The value of the 1980 potato harvest exceeded all previous records, estimated at $95,236,000, over three times the value recorded from the 1979 harvest. The 1981 potato harvest was 16,192,000 hundredweight which is 6.6% higher than the record 1979 crop production of 15,195,000 hundredweight.

The growth in value of farm cash receipts from the sale of potatoes in 1981 was entirely attributable to the high prices that were obtained from the 1980 crop in the spring of 1981.

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Changes in potato prices cause significant changes in farm cash income from the sale of potatoes and thus in total farm cash receipts.

The potato crop is primarily marketed for tablestock. (Table 5). In 1981 46.3% was sold for tablestock, 14.3% for seed and 20.3% for local use, retained for seed and for processing, most of which would be for processing purposes. As much as 80% of the potato acreage is inspected and certified for seed but the majority goes for tablestock.

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Table 4

Potato Statistics - P.E.I.

Year	Acreage	Production '000 cwt.	Year to Year % change	Average Farm Price $/cwt.	Total Farm Value $'000	Year to Year % change
1971	46,800	9,332	-9.0	1.42	10,701	-7.9
1972	39,000	8,740	-6.3	3.80	28,145	163.0
1973	42,000	9,553	9.3	6.20	51,193	81.9
1974	52,000	12,400	29.8	2.26	23,176	-54.7
1975	46,000	9,281	-25.2	5.98	51,569	122.5
1976	51,600	12,457	34.2	4.38	48,546	-5.9
1977	55,000	11,913	4.4	2.45	22,316	-54.0
1978	56,000	12,386	4.0	3.34	32,155	44.1
1979	61,000	15,195	22.7	2.76	30,965	-3.7
1980	56,000	13,025	-14.3	8.78	95,236	207.6
1981	64,000	16,192	24.3	4.78	62,653	-34.2

Source: Prince Edward Island Agricultural Statistics, Vol 16
and Review of Agriculture 1981

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Table 5

Disposition of Potatoes - P.E.I. 1971-1981 (Cwt.)

Crop Year	Shipments		Local Use Seed and Processing	Cullage and Loss	Total
	Table	Seed			
1971	4,484,100	1,077,400	1,666,400	2,104,100	9,332,000(1)
1972	4,927,800	1,077,700	1,401,000	1,333,500	8,740,000
1973	5,076,200	1,432,400	1,748,300	1,296,100	9,553,000
1974	5,262,600	1,059,500	3,932,600	2,145,300	12,400,000(1)
1975	4,706,000	1,453,200	2,464,300	657,500	9,281,000
1976	6,525,700	1,560,700	2,970,200	1,400,400	12,457,000
1977	4,762,800	1,659,400	2,848,000	2,642,800	11,913,000
1978	5,100,200	1,627,500	3,031,900	2,626,400	12,386,000
1979	5,900,900	1,882,100	3,348,400	3,965,000	15,195,400(1)
1980	5,861,500	2,761,100	2,222,800	2,179,600	13,025,000
1981	7,494,100	2,311,300	3,292,300	3,094,200	16,192,000

(1) Includes potatoes disposed of under A.S.B. Diversion Program

Source: Prince Edward Island Agriculture Statistics, Vol. 16 and Review of Agriculture 1981.

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Cattle and Calves

Farm cash receipts from the sale of cattle and calves have ranged from 9.2% to 22.0% of total cash receipts. 1981 farm cash receipts from the sale of cattle and calves accounted for 9.2% of total farm cash receipts. The value of cattle and calves show an upward trend from 1972-1979 with decreases experienced in 1980 and 1981. The 1981 value of cash receipts from cattle and calves was $16,945,000, 11.4% above the 10 year average of 1972-1981, and the 1972 value was 34.8 below the calculated 1972-1981 average.

Table 6 shows that the number of cattle marketed during 1971-1981. Provincial slaughter figures are not available for the first two years so the numbers are not complete. Marketings have fluctuated considerably from a low of 19,761 in 1974 to a high of 32,621 in 1975. In 1981 24,316 head of cattle were marketed commercially.

The prices of cattle and calves were a bit weaker in 1981 compared to the previous year, with the farm cash receipts in 1981 21.0% below 1980 and the number of cattle and calves marketed for the same period showing a 6.3% decrease.

Looking at the livestock sales for Charlottetown in 1980, the average yearly price for medium steers and heifers was $70.40 per hundredweight, ranging from a low of $62.75 to a high of $77.25 per hundredweight. O'Leary livestock sales for medium steers and heifers averaged $71.06 per hundredweight for 1980, ranging from a low of $60.00 to a high of $77.50 per hundredweight. In 1981 prices from Charlottetown livestock sales for medium steers and heifers averaged $66.62 per hundredweight ranging from a low of $60.50 to a high of $74.25 per hundredweight. In O'Leary 1981 average price was $68.53 per hundredweight for medium steers and heifers, ranging from a low of $62.50 to a high of $75.50 per hundredweight.

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Table 6

Cattle Statistics - P.E.I. 1971-1981

Year	# of cattle on P.E.I. Farms as of June 1	Year to Year % change	Cattle marketed	Year to Year % change	Calves marketed	Year to Year % change
1971	106,062	-3.6	17,881*	-	1,061	-31.2
1972	103,000	-2.9	15,732*	-	502	-52.7
1973	98,000	-4.9	20,000	-	144	-71.3
1974	106,000	8.2	19,761	-1.2	690	379.2
1975	111,000	4.7	32,621	65.1	1,394	102.0
1976	108,000	-2.7	30,872	-5.4	1,355	-2.8
1977	105,000	-2.8	31,924	3.4	1,497	10.5
1978	97,000	-8.6	27,739	-13.1	765	-48.9
1979	96,000	-1.0	23,588	-15.0	440	-42.5
1980	102,000	6.3	25,778	9.3	283	-35.7
1981	102,454	0.4	24,316	-5.7	408	44.2

* Slaughter figures from provincial plants not available.

Source: Prince Edward Island Agricultural Statistics, Vol. 15 and Review of Agriculture 1980

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Hogs

Farm cash receipts from hogs have shown a steady upward trend since 1976, but the percentage contribution of total farm cash receipts from the sale of hogs has fluctuated showing a low of 12.0% in 1976 to a high of 17.9% in 1972. 1981 farm cash receipts from the sale of hogs is 53.6% above the 1972-1981 ten year average.

In 1981 commercial marketings of hogs have dropped from the high of 164,785 in 1980 to 161,175, a 2.2% decrease. The 1980 figure for commercial marketings of hogs was the highest since 1970. (Table 7)

Hog numbers on farms as of June 1 increased in 1981 to 116,843 from 99,000 in 1980.

Prices for hogs averaged $69.51 per hundredweight throughout 1981. This is well below the cost of production. The provincial hog stabilization program, which has been in effect since 1973, brings the producer return up to 95% of the cost of production during poor prices, and during good prices the producer replenishes the fund. It is jointly funded by government and the producers.

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Table 7

Hog Statistics - P.E.I.

Year	# of Hogs on P.E.I. Farms as of June 1	Year to Year % change	Hogs Marketed	Year to Year % change	Hog Market Price per cwt.
1971	100,900	-9.9	153,846	-7.3	24.43
1972	90,000	-10.8	131,378	-14.6	36.26
1973	94,000	4.4	133,679	1.8	53.74
1974	76,000	-19.1	118,261	-11.5	49.90
1975	77,000	1.3	110,434	-6.6	67.53
1976	79,000	2.6	109,218	-1.1	63.51
1977	82,000	3.8	113,384	3.8	60.17
1978	96,000	17.1	133,758	18.0	68.69
1979	101,000	5.2	156,360	16.9	63.21
1980	99,000	-2.0	164,785	5.4	59.17
1981	116,843	18.0	161,175	-2.2	69.51

Source: Prince Edward Island Agriculture Statistice, Vol. 15
and Review of Agriculture 1980

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Sheep and Lambs

Historically, sheep and lambs have been a very small segment of farm cash receipts. From 1972-1981 they accounted for approximately 0.1% of total cash receipts in each calendar year. In 1972 cash receipts from the sales of sheep and lambs were $59,000 while 1981 recorded $158,000.

Although marketings of sheep and lambs was up by 54.6% in 1981 over 1980, totals did not reach those recorded in the early 1970's. (Table 8)

An aggressive effort initiated by lamb producers and assisted by government is now underway which will be focused on the production, marketing and promotion of Island lamb.

Wool production has fallen off in the last five years. 1971 wool production was 31,500 lbs. while in 1981 there were 21,800 lbs. of wool produced, a decrease of 30.8%. The average farm price for shorn wool in 1981 was 97 cents per pound.

In the latter part of the 1970's farmers were decreasing sheep and lamb inventories on Prince Edward Island farms but inventories have increased in 1980 and 1981. Inventories of sheep and lambs on June 1, 1981 were up 9.0% over the ten year average of 1971-1980 inventories.

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Table 8

Sheep Statistics - P.E.I.

Year	# of Sheep & Lambs on PEI Farms as of June 1	Year to Year % change	Sheep & Lambs Marketed	Year to Year % change	Wool Prod. (lb.)	Year to Year % change	Total Farm Value of Wool	Year to Year % change
1971	8,484	-15.2	2,772	-3.6	32,000	-3.0	19,000	58.3
1972	7,400	-12.8	2,215	-20.1	28,000	-12.5	17,000	-10.5
1973	7,500	1.4	1,776	-29.2	26,000	-7.1	18,000	3.9
1974	7,200	-4.0	2,089	17.6	20,000	-23.1	11,000	-38.9
1975	6,800	-5.6	1,764	-15.6	20,000	0.0	11,000	0.0
1976	6,100	-10.3	1,370	-22.3	18,900	-5.5	12,000	9.1
1977	6,700	9.8	1,458	6.4	19,100	1.1	13,000	8.3
1978	6,000	-10.4	904	-38.0	20,400	6.8	14,000	7.7
1979	6,200	3.3	885	-2.1	18,700	-8.3	16,000	14.3
1980	7,500	21.0	736	-16.8	21,800	16.6	21,000	31.3
1981	7,619	1.6	1,138	54.6	21,800	0.0	21,000	0.0

Source: Prince Edward Island Agricultural Statistics, Vol. 15 and Review of Agriculture 1980

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Dairy Products

Dairying and dairy products are becoming an increasingly important component of Prince Edward Island agriculture. In 1981 dairy products formed the second largest farm product, accounting for 14.4% of total farm cash receipts. In 1981 the value of sales not including supplementary payments was $26,602,000, a 22.1% increase over the 1980 value.

Total milk production has been increasing each year since 1975. In 1981 production was up 7.3% over 1980 production. (Table 9)

The number of dairy cattle has changed substantially over the years. Due to a change in definition in 1979, it is difficult to compare prior years unless you consider both total cows and heifers used for milk replacement. From 1979 to 1981 there was a 14.8% increase in the number of milk cows on the farm.

Milk production per cow has also shown a significant increase over the years. In 1971 per cow production was 3,434 litres per year; by 1981 per cow production increased 28.4% to 4,408 litres per year.

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Table 9

Milk Statistics - P.E.I.

Year	Total Farm Sales (kilolitres)	Year-Year % change	Total Farm Value (inc. supp. payments) ($'000)	Year to Year % change
1971	76,841	-3.7	7,227	6.9
1972	76,308	-0.7	8,034	11.2
1973	71,452	-6.4	8,808	9.6
1974	63,028	-11.8	10,900	23.8
1975	74,339	+17.9	14,171	30.0
1976	76,333	2.7	14,071	-0.7
1977	80,001	4.8	16,464	17.0
1978	84,250	5.3	18,644	13.2
1979	90,161	7.0	22,009	18.0
1980	93,490	3.7	26,542	20.6
1981	100,316	7.3	31,548	18.9

Source: Prince Edward Island Agricultural Statistics, Vol. 15 and Review of Agriculture 1980

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Eggs and Poultry

Receipts from poultry and eggs have shown a general upward trend during the ten year period 1972-1981. Cash receipts from poultry and eggs have reached the highest value in 1979 of any year during the 1972-1981 period, with poultry receipts of $2,095,000 and egg receipts of $1,032,000. In 1981 total cash receipts from the sale of poultry and eggs were up 19.0% over the ten year average from 1972 to 1981.

According to the 1981 census of agriculture, total numbers of poultry on farms was 234,955, down 14.9% over the 1976 census of agriculture figure of 276,195.

Total egg production has been increasing since 1975 with 1981 production of 2,841,000 dozen, up 1.7% above the 1980 production of 2,794,000 dozen. (Table 10)

Production of fowl and chicken meat was down substantially in 1981 over 1980, 1981 production at 507,000 pounds compared to 1,092,000 pounds in 1980. The decline in poultry meat production resulted from the ceasing of operations of the province's largest producer and processor. The production element of the farm became re-established in mid 1982.

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Table 10

Egg Statistics - P.E.I.

Year	Egg Production ('000 doz)	Year to Year % change	Egg Sales ('000 doz)	Year to Year % change	Value of Sales ($'000)	Year to Year % chance
1971	2,490	-12.0	2,366	-11.5	893	-17.4
1972	2,350	-5.6	2,230	-5.7	940	5.3
1973	2,410	2.6	2,292	2.8	1,387	47.6
1974	2,365	-1.9	2,255	-1.6	1,531	10.4
1975	2,373	0.3	2,268	0.6	1,612	5.3
1976	2,496	5.2	2,397	5.7	1,762	9.3
1977	2,625	5.2	2,537	5.8	1,885	7.0
1978	2,645	0.8	2,563	1.0	1,891	0.3
1979	2,716	2.7	2,634	2.8	2,095	10.8
1980	2,794	2.9	2,712	3.0	2,362	12.7
1981	2,841	1.7	2,761	1.8	2,731	15.6

Source: Prince Edward Island Agricultural Statistics, Vol. 15 and Review of Agriculture 1980

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Fruit and Vegetables

Both strawberries and blueberries make up the majority of the fruit industry on Prince Edward Island. Prices for strawberries have been increasing since 1971 and blueberry prices have been generally on the rise.

Production of both strawberries and blueberries has fluctuated each year over the 1971-1981 period. This fluctuation in production is caused mainly by weather conditions.

Cash receipts from the sale of vegetables has increased over the past three years.

The cole crop industry is becoming re-established through the combined efforts of the industry and government. Production, marketing and some of the processing components are in place. 300 acres of cole crops (broccoli, cauliflower and brussel sprouts) were planted in 1981.

The province produces a diversity of vegetable crops for both the fresh and processed market. Acreages for most are not large with the exception being those crops grown for processing, and since there are less than three processors involved, confidentiality of figures do not permit publication.

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Other crops

The other crop category is comprised mainly of rutabagas, tobacco and fodder corn. Farm cash receipts from other crops has been increasing from 1972-1979, with a decrease experienced in 1980. 1981 farm cash receipts from other crops accounted for 10.4% of total cash receipts. 1981 cash receipts from the other crops increased 35.6% over 1980 receipts.

Rutabaga production has decreased in the latter part of the 1970's and early 1980's. Rutabagas are presently sold as a fresh vegetable. Prince Edward Island is a net exporter of rutabagas; in 1980-81 there were 3,760,000 pounds shipped out of the province.

Tobacco has only been grown on Prince Edward Island since 1961. Acreage of tobacco has been levelling off over the past few years. Tobacco yields vary from year to year; during 1976-1981 yields averaged 1,430 pounds per acre. The value of the crop is becoming increasingly important grossing over $10 million in 1981.

Acreage of fodder corn has increased 80% in the ten year period 1972-1981. This crop, fed as corn silage, is becoming an increasingly important feed for Island livestock.

Other cash receipts that should be mentioned are other livestock products, forest and maple products and supplementary and deficiency payments. Other livestock and products accounted for approximately 1.0% of all farm cash receipts from 1977-1981. Forest and maple products have accounted for approximately 0.2% to 0.4% of all cash receipts from 1972 to 1981.

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Supplementary and deficiency payments have fluctuated over the 1972-1981 period ranging from 2.9% of total farm cash receipts in 1973 to a high of 10.6% of total farm cash receipts in 1975.

Structure by Sector

Prince Edward Island's agricultural Sector has historically been dominated by small farm operators. This has changed somewhat between the 1976 and the 1981 census years. There were 3,154 census farms reported in 1981 compared to 3,677 agricultural holdings in 1976. Caution must be used when comparing census year data as the definition for a census farm differs for the census years. The following tables illustrate data for a Census Farm in 1971 and 1981 while 1976 data is for an Agricultural Holding. In 1971 Statistics Canada defined a Census Farm as a farm, ranch or agricultural holding of one acre or more with sales of agricultural products during the 12 months prior to the census of $50 or more. In 1976 they defined an Agricultural Holding as a farm, ranch or other agricultural holding of one acre or more with sales of agricultural products during the 12 month period prior to the census of $50 or more. This definition of an agricultural holding differs somewhat from the 1976 Census Farm definition. In the 1981 Census, a Census Farm was defined as a farm, ranch or other agricultural holding with sales of agricultural products of $250 or more from June 3, 1980 to June 3, 1981. Also enumerated were operations with expectations of sales of $250 or more in 1981.

In 1976 total area of agricultural holdings was 731,035 acres while 1981 reported 699,367 acres in agriculture. Average acre per farm has increased to 222 acres in 1981, up 11.5% from the 1976 figure. (Table 11)

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TABLE 11

CENSUS STATISTICS

	PRINCE EDWARD ISLAND			NOVA SCOTIA			NEW BRUNSWICK		
	1976	1981	% △	1976	1981	% △	1976	1981	% △
POPULATION STATISTICS									
TOTAL POPULATION	118,229	122,506	3.6	828,571	847,442	2.3	677,250	696,403	2.8
FARM POPULATION	15,790	12,160	-23.0	21,445	18,116	-15.5	19,275	15,436	-20.0
% FARM OF TOTAL POPULATION	13.4	9.9		2.6	2.1		2.8	2.2	
LAND USE									
NO. OF FARMS	3,677	3,154	-14.2	5,434	5,045	-7.2	4,551	4,063	-10.7
TOTAL LAND AREA (ACRES)	1,397,760	1,397,760		13,057,280	13,057,280		17,685,120	17,685,120	
AREA IN FARMS (ACRES)	731,035	699,367	-4.3	1,218,953	1,151,567	-5.5	1,153,438	1,082,045	-6.2
% OF TOTAL AREA IN FARMS	52.3	50.0		9.3	8.8		6.5	6.1	
AVERAGE ACRE PER FARM	199	222	11.6	224	228	1.8	253	266	5.1
IMPROVED LAND (ACRES)	503,558	500,853	-0.5	416,808	439,803	5.5	466,334	474,271	1.7
UNIMPROVED LAND (ACRES)	227,477	198,514	-12.7	802,145	711,802	-11.3	687,104	607,809	-11.5
CROPLAND (ACRES)	391,534	391,118	-0.1	275,934	278,690	0.1	338,706	322,538	-4.8
CROPLAND ACRE PER FARM	106	124	17.0	51	55	7.8	74	79	6.8
TOTAL CAPITAL VALUE $	326,480,636	669,470,045	105.1	446,832,243	897,562,841	100.9	347,795,657	667,245,470	91.8
AVERAGE CAPITAL VALUE PER FARM $	88,790	212,261	139.1	82,229	177,911	116.4	76,422	164,225	114.9

1976 DATA IS ON ALL AGRICULTURAL HOLDINGS NOT JUST CENSUS FARMS. REFER TO 1976 CENSUS OF CANADA FOR DEFINITIONS OF BOTH CENSUS FARM AND AGRICULTURAL HOLDINGS.

SOURCE: 1976 and 1981 CENSUS OF CANADA

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Improved land in P.E.I. has increased by 1.9% from 1971 to 1976 but decreased by 0.5% between 1976 and 1981. From 1976-1981 a small decrease occurred in cropland and improved pasture, while increases occurred in summerfallow and other improved land. Unimproved land has decreased by 14.4% between 1976 and 1981. Decreases occurred in both woodland and other unimproved land for this period.

Farm population in Prince Edward Island has been decreasing over the census years (See Table 11). Farm population in 1976 was 15,790, 13.4% of total P.E.I. population; in 1981 farm population was 12,160, 9.9% of total P.E.I. population. In general farm population has decreased by 23.0% in 1981 over the 1976 figure.

Table 12, Farms Classified by Size of Farms, indicates the percentage of farms with 400 acres or more has increased from 5.5% in 1971 to 9.7% in 1976 to 12.7% in 1981.

The distribution of farm operators classified by age of operator (Table 13) has changed somewhat since 1971. Farmers under 25 in 1971 accounted for 2.1% of the farmers; in 1981 this increased to 3.8%. The 25 to 34 range is up 16.6% in 1981 from 12.1% in 1971; the 55 to 59 range is down from the 14.3% in 1971 to 11.7% in 1981; the 60 to 64 range is down from 10.8% in 1971 to 9.5% in 1981; the 65 to 69 range remained relatively the same at 6.8% in 1971 and 6.7% in 1981; the 70 and over category was down from 7.3% in 1971 to 5.7% in 1981.

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Table 12

Farms Classified by Size of Farms - P.E.I.

	1971	% of Total	1976	% of Total	1981	% of Total
under 3 acres	33	0.7	34	0.9	77	2.4
3- 9	58	1.3	60	1.6	72	2.3
10- 69	660	14.5	575	15.6	423	13.4
70- 129	1,447	31.8	961	26.1	735	23.3
130- 179	835	18.4	562	15.3	457	14.5
180- 239	653	14.4	549	14.9	414	13.1
240- 399	611	13.4	585	15.9	577	18.3
400- 559	145	3.2	207	5.7	217	6.9
560- 759	62	1.4	76	2.1	87	2.8
760-1119	19	0.4	40	1.1	57	1.8
1120-1599	12	0.3	18	0.5	24	0.8
1600 --	8	0.2	10	0.3	14	0.4
Total	4,543	100.0	3,677	100.0	3,154	100.0

1976 data is on agricultural holdings, 1971 and 1981 data is on census farms.

Source: 1971, 1976 and 1981 Census of Canada

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Table 13

Farms Classified by Age of Operator - P.E.I.

	1971	% of Total	1976	% of Total	1981	% of Total
under 25	96	2.1	68	1.9	119	3.8
25-34	549	12.1	485	13.2	523	16.6
35-44	931	20.5	769	20.9	667	21.1
45-54	1,186	26.1	949	25.8	786	24.9
55-59	650	14.3	454	12.3	369	11.7
60-64	490	10.8	412	11.2	300	9.5
65-69	309	6.8	277	7.5	212	6.7
70 --	332	7.3	263	7.2	178	5.7
Total	4,543	100.0	3,677	100.0	3,154	100.0

1976 data is on agricultural holdings, 1971 and 1981 data is on census farms

Source: 1971, 1976 and 1981 Census of Canada

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Since Prince Edward Island's economy is too small to influence the national prices of products, Island farmers are price takers in most commodities. The P.E.I. economy contributed 0.37% to Canada's total personal income in 1980.

When we look at farm cash receipts in constant dollars there has been little change since 1971. Graph 2 illustrates the actual farm cash receipts for Prince Edward Island and compares it with the real or constant receipts that would have been received if it is related to the farm price index. The real receipts are arrived at by dividing the actual farm cash receipts of each year by the farm price index of that year. From 1971 to 1981 the actual farm cash receipts increased from $39 million to $184 million, but in real terms it increased from $39 million to $50 million for the same period.

Any change in the price received for products or the price of inputs needed to produce the products affect the net income. The index of farm input prices has risen steadily since 1971 and was up 11.7% in 1981 over 1980. The index number of farm prices change mainly with changes in prices for potatoes as well as for dairy products, hogs and cattle. The index of farm prices has increased favourably in comparison to the input prices index. (Graph 3)

Prince Edward Island's farm price index showed the greatest percentage increase of any province in Canada from 1980-1981 with a 31.6% increase. In comparing these indices, in general P.E.I.'s price index is higher than Canada's, putting P.E.I. in a favourable position pricewise when compared to Canada as a whole. (Graph 4)

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The index of physical volume of agricultural production has been developed as an index of unduplicated gross farm production. The quantities of farm products included in the index are limited to:

1) those sold by farmers (except direct inter-farm sales).
2) amounts consumed in farm homes on farms where produced and
3) amounts equal to changes in farm-held inventories.

The index of farm production expresses, for each year, production as a percentage of the gross output in the base year 1971=100. Graph 5 shows that the volume of production in Prince Edward Island is up from 100.0 in 1971 to 151.4 in 1981. The Canadian index of physical volume of agricultural production was up slightly over the same period from 100.0 in 1971 to 127.2 in 1981.

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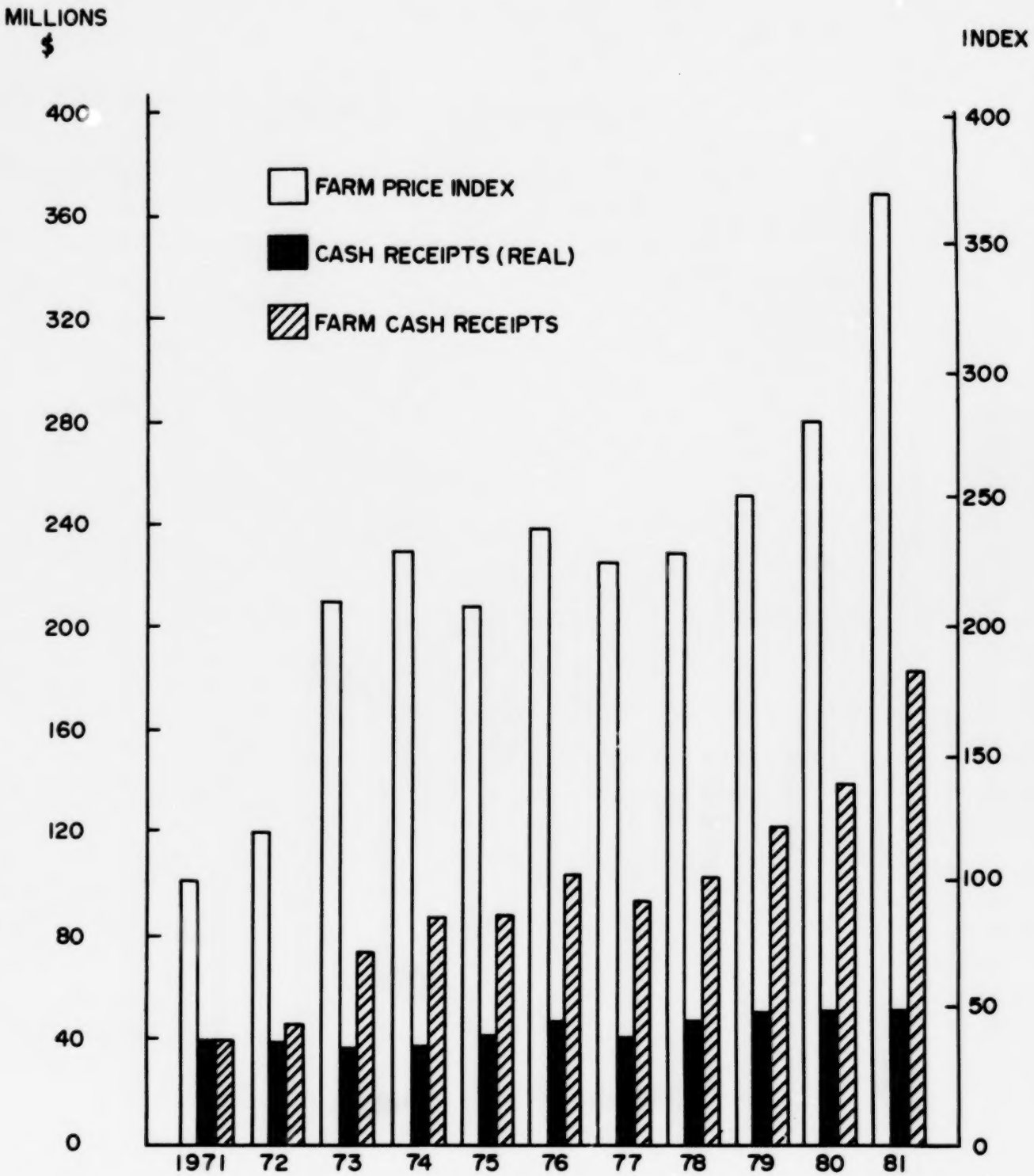
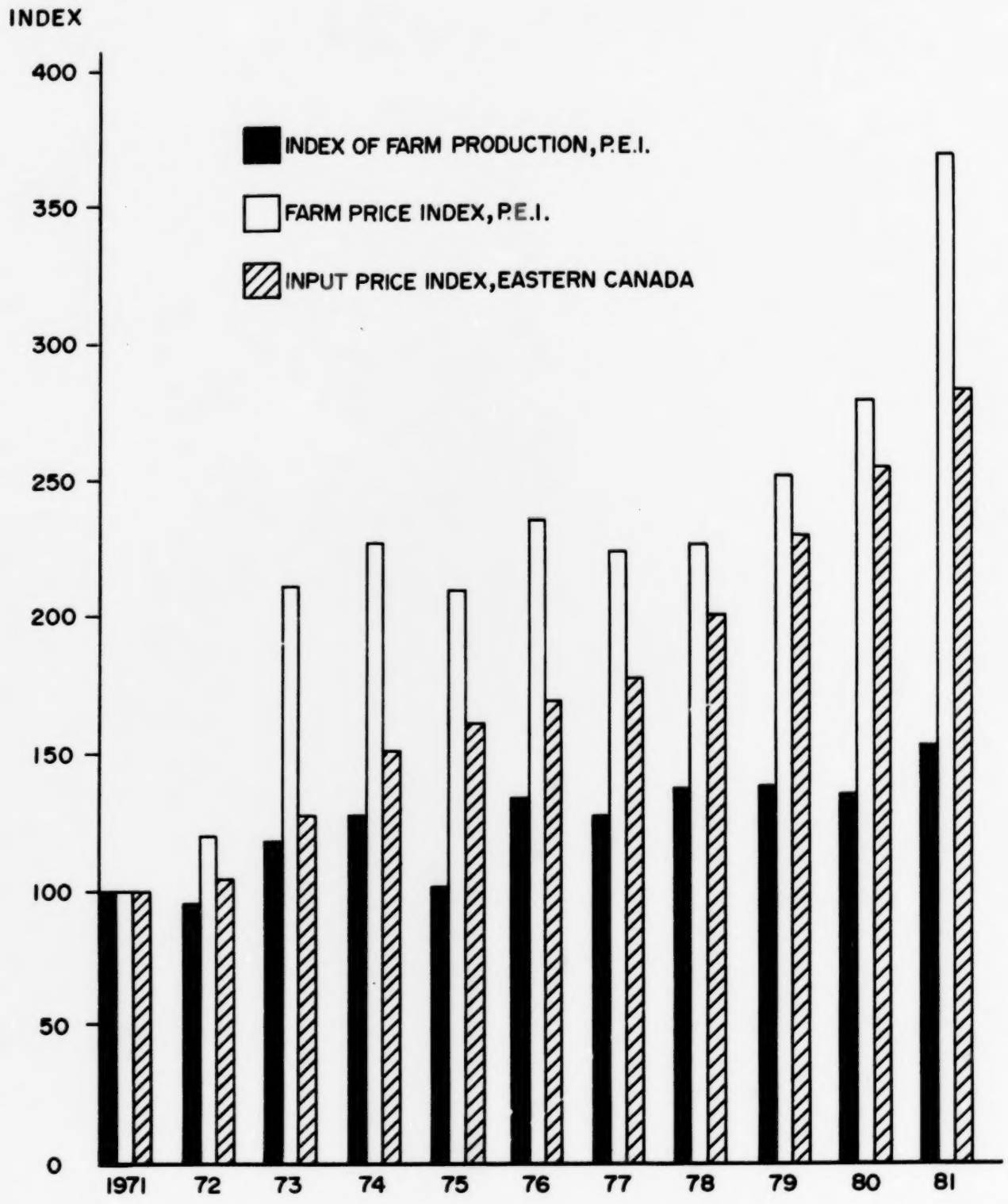
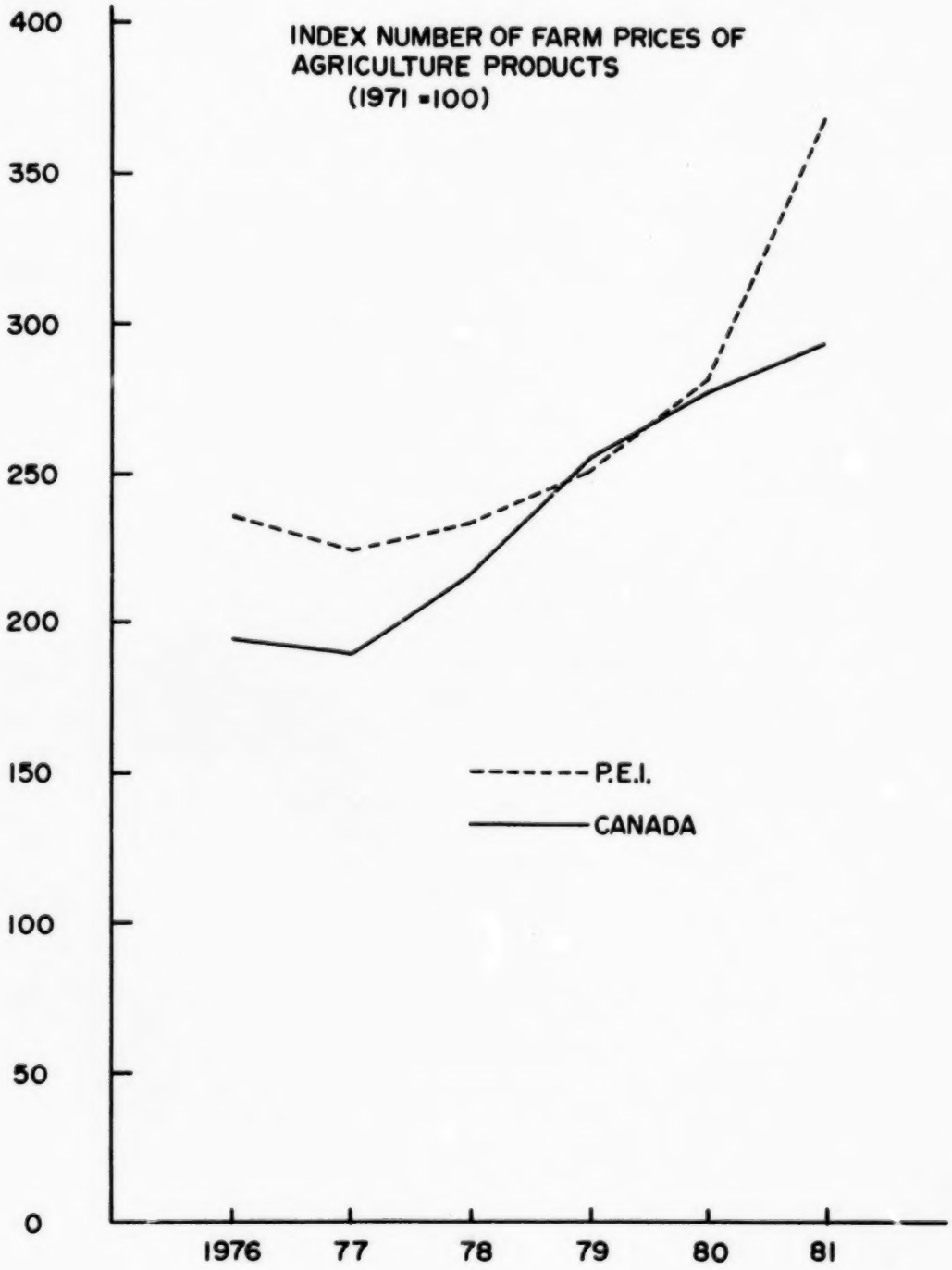
GRAPH 2


MILLIONS
$
INDEX
400
360
320
280
240
200
160
120
80
40
0
400
350
300
250
200
150
100
50
0
FARM PRICE INDEX
CASH RECEIPTS (REAL)
FARM CASH RECEIPTS
1971
72
73
74
75
76
77
78
79
80
81

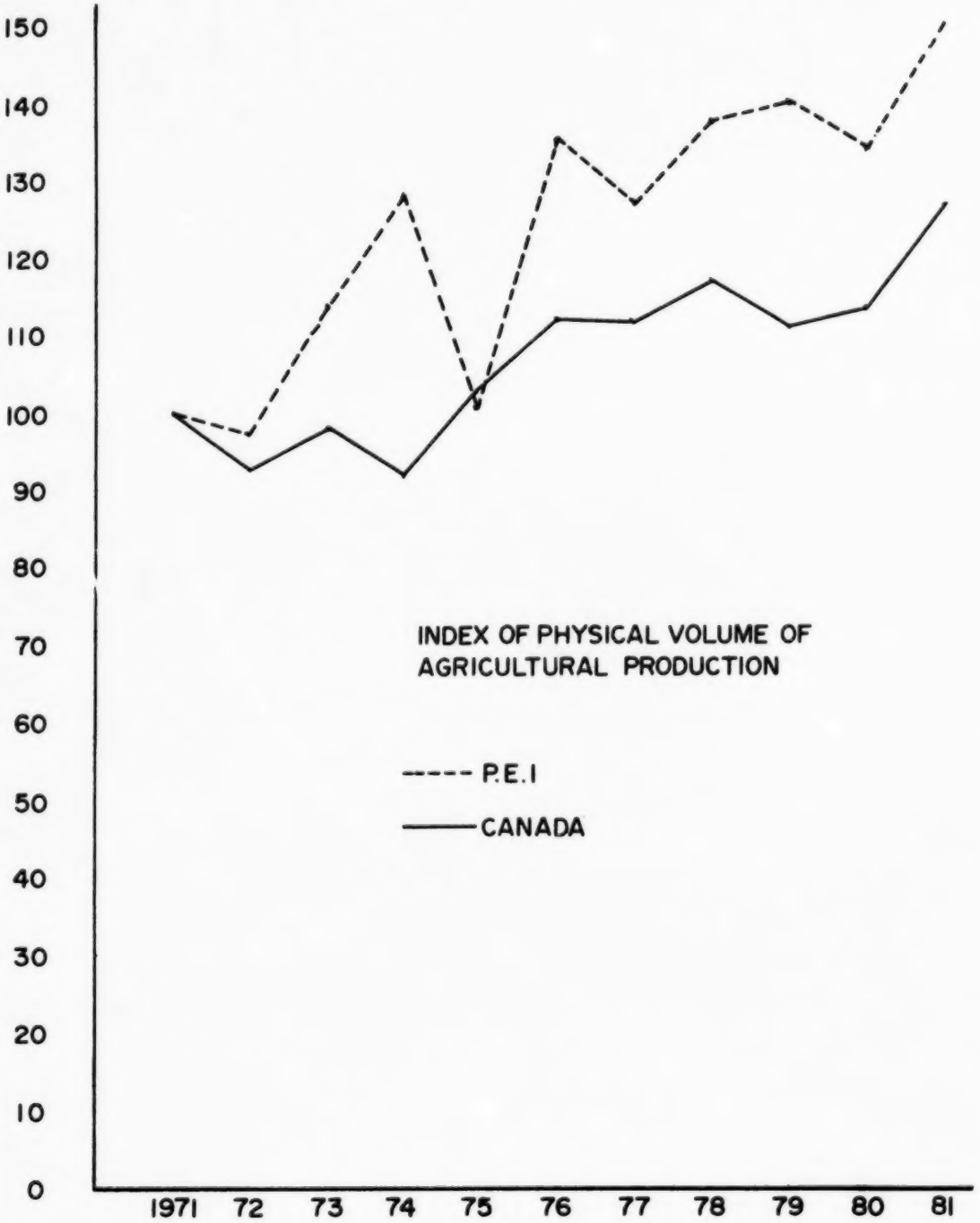
GRAPH 3


INDEX
400
350
300
250
200
150
100
50
0
INDEX OF FARM PRODUCTION, P.E.I.
FARM PRICE INDEX, P.E.I.
INPUT PRICE INDEX, EASTERN CANADA
1971
72
73
74
75
76
77
78
79
80
81

GRAPH 4


INDEX NUMBER OF FARM PRICES OF
AGRICULTURE PRODUCTS
(1971 =100)
400
350
300
250
200
150
100
50
0
1976
77
78
79
80
81
P.E.I.
CANADA

GRAPH 5


150
140
130
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90
80
70
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20
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1971
72
73
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75
76
77
78
79
80
81
INDEX OF PHYSICAL VOLUME OF AGRICULTURAL PRODUCTION
----- P.E.I
——— CANADA

Several comments can be made about the Agricultural Sector:

1. The percentage contribution of potatoes to farm cash income appears to have increased in the last two years. Percentage cash receipts contributed by the sale of cattle and calves, hogs, poultry, etc. have generally been declining over the same period. This decline may be explained by the large value of the potato crop over the past two years which resulted in large value of total farm cash income.

2. Certain enterprises, like poultry meat and eggs, are participants in national marketing plans. Administered pricing and quotas effectively remove much of the erratic swings in both prices and production.

3. Wide fluctuations in farm cash receipts from the sale of potatoes has widespread effect on the entire economy as illustrated by the 1980-81 crop year. Any change in potato prices greatly affects all producers.

4. The index of physical volume of agricultural production (Graph 5) did not increase very significantly from 1971-1975. In this time period the index of farm production rose by 1.4%. The index rose 33.7% from 1975-1976 and again increased 15.6% from 1976 to 1981. It appears that much of the change in physical volume of output can be attributed to potato production. Potato production figures indicate that production was down 0.5% in 1975 compared to 1971, and potato production rose by 34.2% from 1975-1976. By comparing year to year percentage changes in the index of physical volume of agricultural production and the potato production figures, we can see that each year potato production

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decreased the index of physical volume of production also decreased and vice versa.

Farm Number and Characteristics

Two features have characterized the rapid change in Canada's agricultural industry over the last two decades. There has been a rapid decline in the number of farmers and a decrease (although much slower) in farm acreage; taken together these have brought about a substantial increase in average farm size. With favourable increases in capitalization and slight increases in productivity and output, the net result has been to transform the picture from one of many small farms to fewer but bigger farms, better equipped, for the most part, to give the operator an income comparable with other sectors of the economy. One must recognize as well that becoming "too big too fast and becoming too specialized" can place farm operations in a vulnerable financial situation.

Looking at Prince Edward Island, Nova Scotia and New Brunswick census statistics, some general comments can be made:

1. Total population for the three provinces have increased in 1981 compared to 1976. Farm population has decreased in all three provinces in 1981 compared to 1976. Prince Edward Island has experienced a greater decrease in farm population in 1981 with farm population decreasing by 23.0% in 1981 over 1976.

2. Total number of farms has decreased in all three provinces between 1976 and 1981 with Prince Edward Island decreasing at a faster rate than Nova Scotia and New Brunswick.

3. Total area in farms has decreased in all three provinces with P.E.I. decreasing by 4.3% between 1976 and 1981. P.E.I. decreased in total area in farms at a slower rate than the other two provinces.

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4. Both Nova Scotia and New Brunswick average larger farms than Prince Edward Island, but P.E.I. has shown a greater percentage increase in average acreage per farm between 1976 and 1981 than the other two provinces.

5. Although improved land in P.E.I. has decreased between 1976 and 1981 and increased in both Nova Scotia and New Brunswick during this period, P.E.I. still exceeded the other two Maritime Provinces in total acreage of improved land. P.E.I. also has more cropland; and cropland per farm has increased at a faster rate between 1976 and 1981 in P.E.I. than in Nova Scotia and New Brunswick.

6. Average capital value per farm is much higher in P.E.I. than in Nova Scotia and New Brunswick, and it has also increased at a faster rate in P.E.I. than the other provinces between 1976 and 1981.

All these trends seem to indicate a more firm base of agriculture in Prince Edward Island

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Summary

1. Agriculture and its associated supply and processing sectors is, and is likely to remain, of central importance to the economy of Prince Edward Island.

2. Both cash and gross farm income have shown significant increase over the last three years (1979-1981 inclusive) but net income has varied from year to year due to increases in operating and depreciation charges. Farm cash income in real terms has shown little change over the last three years.

3. Physical volume of agricultural production has increased over the last few years, thus greater farm cash income has come about not only as a result of improvements in price levels but also in total output.

4. Wide swings in all measures of income are tied very closely to potato prices thus giving rise to a great measure of income instability.

5. The agricultural economy is indeed becoming more diversified in the integration of crops and livestock and the introduction of new crops.

6. Number of farms has declined at a faster rate in Prince Edward Island than in Nova Scotia and New Brunswick. Total area in farms has declined in P.E.I. from 1976 to 1981, but declined at a slower rate than the other two provinces. Total improved land and cropland is much higher in P.E.I. than in the other two Maritime Provinces.

   Average cropland per farm and average capital value per farm are still higher in P.E.I. by a substantial margin than either Nova Scotia or New Brunswick.

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Conclusions

The underlying strengths of agriculture in P.E.I. which are a superior land resource and a large relatively stable potato industry, have enabled it to withstand economic pressure.

Price increases have occurred for a number of agricultural products as has the physical volume of production.

Due to decreases in farm numbers and in cropland acreage from 1976-1981, production per farm and production per acre have increased.

The 1973 potato crop returned good prices during the fall of 1973 and the spring of 1974. Increased production for the 1974 crop year gave way to lower prices in 1974-75. Similarly, the 1980 crop year saw good prices and production increases in 1981 which gave way to lower prices. This up and down cycle that potatoes follow in both price and production are characteristic of most field crops.

The hog and beef industries also experience up and down cycles in prices and production.

Through the administration of government programs production and prices of certain commodities are being stabilized. The administration of a hog stabilization program has helped to stabilize hog prices in Prince Edward Island and the other Maritime Provinces. P.E.I. dairy production and prices have been stabilized by the implementation of a Milk Market Sharing Quota Board and the P.E.I. Milk Commission. Egg production has been stabilized by the Canadian Egg Marketing Agency.

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The Prince Edward Island Government has been providing various incentive programs such as the Farm Development Program, the Production to Market Commodity Development Program, along with a full compliment of production, extension and marketing services to help keep Island farmers competitive.

In the next few years the greatest concerns of the Prince Edward Island Government will be to keep farmers informed of existing programs and to monitor, priorize and to deliver those programs in such a way to provide the most needed services to Island farmers.